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09/751,892	12/29/2000	Hartley C. Starkman	60709-00010	9047
7590 12/29/2006 John S. Beulick			EXAMINER	
Armstrong Teas	sdale LLP	,	OYEBISI, OJO O	
One Metropolitan Sq., Suite 2600 St. Louis, MO 63102		•	ART UNIT	PAPER NUMBER
St. Louis, Wo	05102		3692	
SHORTENED STATUTOR	Y PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MO	NTHS	12/29/2006 PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary		Application No.	Applicant(s)		
		09/751,892	STARKMAN, HARTLEY C.		
		Examiner	Art Unit		
		OJO O. OYEBISI	3692		
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).					
Any reply received	by the Office later than three months after the mailing nadjustment. See 37 CFR 1.704(b).				
	ive to communication(s) filed on 30 Ma	arch 2006			
2a)⊠ This action		action is non-final.			
·	3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits				
closed in	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.				
Disposition of Cla	nims '				
4a) Of the 5) ☐ Claim(s) 6) ☑ Claim(s) 7) ☐ Claim(s)	1-14 and 16-18 is/are pending in the act above claim(s) is/are withdraw is/are allowed.  1-14 and 16-18 is/are rejected.  is/are objected to.  are subject to restriction and/or	vn from consideration.			
Application Paper	rs				
<ul> <li>9) The specification is objected to by the Examiner.</li> <li>10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).</li> <li>11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.</li> </ul>					
Priority under 35	U.S.C. § 119	•			
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>					
Attachment(s)					
1) Notice of Reference 2) Notice of Draftsp	erson's Patent Drawing Review (PTO-948) osure Statement(s) (PTO/SB/08) Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:	ite		

### **DETAILED ACTION**

In the amendment filed on 03/30/06, the following have occurred: claims 1,7,9, and 17 have been amended, claims 1-14 and 16-18 are pending, and claims 1-14 and 16-18 stand rejected in this office action.

## Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-14 and 16-18 are rejected on the ground of nonstatutory obviousnesstype double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 7,003,491. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-14 and 16-18 in the pending application would produce the same invention as those recited in claims 1-22 of U.S. Patent No. 7,003,491. For example, the '491 patent discloses a method for modeling collections for non-stationary asset-based distressed loans in volatile markets wherein future monthly cash inflows are predicted using a computer system configured with a collections model and a re-marketing model, the non-stationary asset-based loans are included within a distressed loan portfolio, said method comprising the steps of: categorizing each non-stationary asset-based loan included within the portfolio based on a prior month's payment of the corresponding loan, non-stationary assetbased loans include at least one of automobile loans, vehicle loans, and credit card loans; categorizing each loan included within the portfolio based on a contractual delinquency of the corresponding loan; utilizing the collections model to predict payments made by borrowers of each loan included within the portfolio, the collections model is based on historical payment information of the borrower, a plurality of

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collection strategies that may be utilized for collecting payment from the borrower, and the delinquency category assigned to the loan; comparing payments received during a current month for each loan to the delinquency category assigned to each corresponding loan and the predicted payments for each corresponding loan; comparing payments received for each loan during the current month to the prior month's payment category of the corresponding loan; incorporating management feedback into expectations of future performance wherein management feedback includes recommending a change in collection strategies used for prompting payment from each borrower associated with each loan included within the portfolio and predicting future payment performance of each borrower based on the recommended change in collection strategies; and updating the collections model stored within the computer system based on the payment comparisons and the management feedback, the updated collections model predicts future cash inflows for each loan included within the portfolio, the updated collections model is configured to apply a greater weight to the payment performance of each loan for the current month as compared to the payment performance of each loan for prior months, and the pending application discloses method steps that are substantially the same as the method steps shown supra in the '491 patent. Thus, since the pending application and '491 patent recite means or steps that are substantially the same, it would have been obvious to one of ordinary skill in the art to utilize the apparatus disclosed in '491 patent to carry out all the method steps disclosed in the '892 application. The omission of an

element with a corresponding loss of function is an obvious expedient. See in re Karlson, 136 USPQ 184 and Ex parte Rainu, 168 USPQ 375.

# Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-14, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosiba et al (Kosiba hereinafter, U.S PAT: 6,098,052) in view of Regan (U.S PAT: 6,898,574), and further in view of McCauley (U.S PAT: 6,067,533).

Re claim 1. Kosiba discloses a method for predicting loan collections for a group of non-stationary asset-based loans using a computer system configured with a collections model and a re-marketing model (i.e., computer models that compute an estimate, for each possible collection strategy, as to how much will be paid on each account in response to that collection strategy, computes an estimate as for the amount of resources to be expended in the execution of that collection strategy, see col.1, lines 1-15), the group of non-stationary asset-based loans included within a distressed loan portfolio, an account including at least one of the loans, said method comprising the steps of:

Categorizing each non-stationary asset-based loan included within the portfolio based on a prior month's payment of the corresponding loan, non-stationary asset-based loans include at least one of automobile loans, vehicle loans, and

credit card loans: categorizing each loan included within the portfolio based on a contractual delinquency of the corresponding loan (see col.2 lines 10-30); utilizing the computer and the collections model to predict a payment behavior for a borrower of a non-stationary asset-based loan included within a distressed loan portfolio, the collections model is based on historical payment information of the borrower. Ioan delinquency assumptions, and a plurality of collection strategies that may be utilized for collecting payment from the borrower and the delinquency category assigned to the loan (see col.1, lines 1-15, also see col.2, lines 10-30, also col.19, lines 17-25); initiating at least one of the plurality of collection strategies with respect to the borrower; analyzing the borrower's payment behavior after initiating the at least one collection strategy including whether the borrower made a payment and, if so, an amount of the payment(i.e., whether the minimum monthly payment was made, see col.18, lines 33-37); comparing the borrower's payment behavior after initiating the at least one collection strategy to the predicted payment behavior of the borrower and the delinquency category assigned to the corresponding loan (see col.18, lines 33-40); comparing the borrower's payment behavior after initiating the at least one collection strategy to the prior month's payment category of the corresponding loan (see col.18, lines 33-40); the re-marketing model (i.e., computer models that compute an estimate, for each possible collection strategy, as to how much will be paid on each account in response to that collection strategy, computes an estimate as for the amount of resources to be expended in the execution of that

collection strategy, see col.1, lines 1-15) further calculates a probability that an event will occur impacting payment of the borrower's loan (see col.15, lines 30-50); generating delinquency moving matrices for each loan included within the group of loans including the borrower's loan based on an output from the collections model and the re-marketing model (i.e., The consumer experience evaluation model (32) generates an estimate of these metrics for each delinquent consumer in need of a strategy, for every possible consumer experience (14). Delinquent accounts being run through the model, see col.15, lines 7-20), the matrices displaying for each account a percentage indicating a probability that the account will roll forward into a next classification of delinquency (see col.4, lines 25-30, see col. 2, lines 40-45), and a number of months that the account is delinguent (see col.5, lines 15-25, also see col.13, lines 60-67); and predicting which accounts will roll forward into a next classification of delinquency based on information displayed in the matrices (i.e., It is a further object to determine which delinquent accounts should be targeted to minimize negative rolling and to maximize total collections, see col. 2, lines 40-45). Kosiba does not explicitly disclose utilizing the computer and the re-marketing model to calculate an amount generated and expenses incurred from repossessing the non-stationary asset used as collateral for the borrower's loan. However, Regan makes this disclosure (i.e., once the unit has been seized, an appraisal agent can be assigned to appraise the unit, see col.9, lines40-60, also see the abstract). Neither Kosiba nor Regan discloses incorporating management feedback into

expectations of future performance wherein management feedback includes recommending a change in collection strategies used for prompting payment from the borrower associated with the loan included within the portfolio and predicting future payment performance of the borrower based on the recommended change in collection strategies; updating the collections model based on the payment comparisons and the management feedback, the updated collections model predicts future cash inflows for each loan included within the portfolio, the updated collections model is configured to apply a greater weight to the payment performance of each loan for the current month as compared to the payment performance of each loan for prior months. However, McCauley discloses incorporating management feedback into expectations of future performance wherein management feedback includes recommending a change in collection strategies used for prompting payment from the borrower associated with the loan included within the portfolio and predicting future payment performance of the borrower based on the recommended change in collection strategies; updating the collections model based on the payment comparisons and the management feedback (see fig.1-2 and 4 –all, also see col.4 line 55 to col.7 line 40), the updated collections model predicts future cash inflows for each loan included within the portfolio, the updated collections model is configured to apply a greater weight to the payment performance of each loan for the current month as compared to the payment performance of each loan for prior months (see fig.1-2 and 4-all; see col.4 line 55 to col.7 line 40, also see col.8 line 19 to

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col.10 line 5). Thus, it would have obvious to one of ordinary skill in the art to combine the teachings of kosiba, Regan and McCauley in order to recommend an efficient collection strategy for each account that optimizes the use of available collection resources.

Re claim 2. Kosiba further discloses a method wherein said step of generating delinquency moving matrices further comprises the step of: assigning probability distributions to loan delinquency assumption (i.e., probability distribution of the consumer's experience, see col.10, line 20-25); and inputting the loan delinquency assumptions and the assigned probability distributions into the collections model and the re-marketing model to predict a payment behavior for a borrower of a non-stationary asset-based loan included within the distressed loan portfolio (see col.12, lines 40-50).

Re claim 3. Kosiba further discloses a method wherein said step of assigning probability distributions to loan delinquency assumptions further comprises the step of determining a percentage of loans within the probability distributions that will roll forward into a next period of delinquency (i.e., It is a further object to determine which delinquent accounts should be targeted to minimize negative rolling and to maximize total collections, see col. 2, lines 40-45, also see col.4, lines 25-30).

Re claim 4. Kosiba further discloses a method further comprising the step of indicating a number of months an account is delinquent (see col.5, lines 15-25, also see col.13, lines 60-67).

Re claim 5. Kosiba further discloses a method according to wherein said step of generating delinquency moving matrices further comprises the step of adjusting loan delinquency assumptions to account for variations in a plurality of forces impacting a payment behavior of a borrower including at least one of time of season, changes in political climate, interest rate changes, and a likelihood that a natural disaster may occur (i.e., If it is determined that seasonality is significant, the model (10) can include "seasonality factors" in the estimates of P[MMP] and E[%FDA]., every consumer and every consumer experience (14). For example, if it turns out that P[MMP] is reduced by 10% in January, the model (10) can multiply the consumer experience's original P[MMP] estimate by 0.9, for every consumer experience and every consumer, see col.15, lines 25-35, also the learning model can start a process that recalibrates the impact parameters using all the most recent data, see col.16, lines 1-10).

Re claim 6. Kosiba does not explicitly discloses a method further comprising the step of adjusting probability distributions assigned to the loan delinquency assumptions to account for adjustments made to the loan delinquency assumptions. However, Kosiba discloses a learning model that ensures that the model is not stagnant. As the delinquent population changes, the learning model ensures that the model reacts to those changes. Thus, since the model responds, automatically, to changes in delinquent population, it would be obvious that probability distribution assigned to that delinquent population would also change.

Re claims 7, 9 and 17. Claims 7, 9 and 17 recite similar limitations to claim 1, and thus rejected using the same art and rationale as in the rejection of claim 1.

Re claim 8. Kosiba further discloses a method wherein said step of predicting a portfolio value further comprises the step of predicting a cash flow value for a portfolio (i.e., estimate how much will be on each account in response to that collection strategy, see abstract, also see col.3, lines 15-35).

Re claim 10. Kosiba further discloses a system wherein said server further configured to: assign probability distributions to loan delinquency assumptions (i.e., probability distribution of the consumer's experience, see col.10, line 20-25); and input the loan delinquency assumptions and the assigned probability distributions into the collections model and the re-marketing model to predict a payment behavior for a borrower of a non-stationary asset-based loan included within the distressed loan portfolio (see col.12, lines 40-50).

Re claim 11. Kosiba further discloses a system wherein said server further Configured to determine a percentage of loans within the probability distributions that will roll forward into a next period of delinquency (i.e., It is a further object to determine which delinquent accounts should be targeted to minimize negative rolling and to maximize total collections, see col. 2, lines 40-45, also see col.4, lines 25-30).

Re claim 12. Kosiba further discloses a system wherein said server further configured to indicate a number of months an account is delinquent (see col.5, lines 15-25, also see col.13, lines 60-67).

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Re claim 13. Kosiba further discloses a system wherein said server further Configured to adjust loan delinquency assumptions to account for variations in a plurality of forces impacting a payment behavior of a borrower including at least one of time of season, changes in political climate, interest rate changes, and a likelihood that a natural disaster may occur (i.e., If it is determined that seasonality is significant, the model (10) can include "seasonality factors" in the estimates of P[MMP] and E[%FDA]., every consumer and every consumer experience (14). For example, if it turns out that P[MMP] is reduced by 10% in January, the model (10) can multiply the consumer experience's original P[MMP] estimate by 0.9, for every consumer experience and every consumer., see col.15, lines 25-35).

Re claim 14. Kosiba does not explicitly discloses a system wherein said server further Configured to adjust probability distributions based on loan assumption adjustment. However, Kosiba discloses a learning model that ensures that the model is not stagnant. As the delinquent population changes, the learning model ensures that the model reacts to those changes. Thus, since the model responds, automatically, to changes in delinquent population, it would be obvious that probability distribution assigned to that delinquent population would also change or adjust.

Re claim 16. Kosiba further discloses a system wherein said network is at least one of a WAN or a LAN (see fig.1B).

Re claim 18. Kosiba further discloses a system wherein said server configured to predict a cash flow value for a portfolio (i.e., estimate how much will be on each account in response to that collection strategy, see abstract, also see col.3, lines 15-35).

## Response to Arguments

5. Applicant's arguments with respect to claims 1-14 and 16-18 have been considered but are most in view of the new ground(s) of rejection.

#### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OJO O. OYEBISI whose telephone number is (571) 272-8298. The examiner can normally be reached on 8:30A.M-5:30P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD E. CHILCOT can be reached on (571)272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RICHARD E. CHILCOT, JR. SUPERVISORY PATENT EXAMINER

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